

Amendments to the Claims

1. *(Currently Amended)*

A transmitter comprising:

- a power amplifier (~~P-A~~) having a power supply input (~~PI~~) and an output (~~P-AO~~) for supplying a transmission signal (~~V_o~~) with an output power (~~P_o~~),
- a power supply (~~PS~~) having power supply outputs (~~PS01, PS02~~) for supplying a first power supply voltage (~~PV1~~) having a first level and a second power supply voltage (~~PV2~~) having a second level being higher than the first level,
- a switching circuit (~~SC~~) arranged between the power supply outputs (~~PS01, PS02~~) and the power-supply input (~~PI~~), and
- a controller (~~CO~~) for supplying, in response to a first power change command (~~PC~~) indicating a first desired level of the output power (~~P_o~~), a control signal to the switching circuit (~~SC~~) to supply the first power supply voltage (~~PV1~~) to the power supply input (~~PI~~), and for supplying, in response to a second power change command (~~PC~~) indicating a second desired level of the output power (~~P_o~~) and succeeding the first power change command (~~PC~~), the control signal to the switching circuit (~~SC~~) to supply either the first power supply voltage (~~PV1~~) or the second power supply voltage (~~PV2~~) to the amplifier power supply input (~~PI~~) depending on values of said first desired level and said second desired level.

2. *(Currently Amended)*

A transmitter as claimed in claim 1, wherein the transmitter is a handheld apparatus (~~HH~~) and further comprises a receiving circuit (~~RC~~) for receiving a power control command (~~PCB~~) from a base station (~~BS~~) to supply the first power change command (~~PC~~) and the second power change command (~~PC~~).

3. *(Currently Amended)*

A transmitter as claimed in claim 1, arranged for operation in a transmission system based on time slots (~~n-1, n, n+1~~), and wherein the first power change command (~~PC~~) indicates a value of the output power (~~P_o~~) required during a time slot (~~n~~) starting after an instant of occurrence of the first power change command (~~PC~~), and wherein the second power change command (~~PC~~) indicates a value of the output power (~~P_o~~) required during a next time slot (~~n+1~~) succeeding the

first mentioned time slot (~~n~~) and starting after an instant of occurrence of the second power change command (~~PC~~).

4. *(Currently Amended)* A transmitter as claimed in claim 3, wherein the controller (~~CO~~) is arranged

- for supplying the control signal to the switching circuit (~~SC~~) to supply the second power supply voltage (~~PV2~~) to the power amplifier (~~PA~~) at substantially an instant the second power change command (~~PC~~) indicates that the output power (~~Po~~) has to increase, or at the latest at a start of the next time slot (~~n+1~~), and
- for controlling the power supply (~~PS~~) to increase the first level to above the second level before a start of a time slot (~~n+2~~) succeeding the next time slot (~~n+1~~).

5. *(Currently Amended)* A transmitter as claimed in claim 3, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the first power supply voltage (~~PV1~~) to the power amplifier (~~PA~~) at substantially a start of the next time slot (~~n+1~~) if the second power change command (~~PC~~) indicates that the output power (~~Po~~) has to decrease, and for controlling the power supply (~~PS~~) to decrease the second level below the first level.

6. *(Currently Amended)* A transmitter as claimed in claim 5, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the second power supply voltage (~~PV2~~) after the second level decreased below the first level.

7. *(Currently Amended)* A transmitter as claimed in claim 5, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the second power supply voltage (~~PV2~~) at substantially an instant a third power change command (~~PC~~) is received during the next time slot (~~n+1~~), or at a start of a time slot (~~n+2~~) succeeding the next time slot (~~n+1~~), if the third power change command (~~PC~~) indicates that still the lower output power (~~Po~~) indicated by the second power change command (~~PC~~) is required.

8. *(Currently Amended)* A transmitter as claimed in claim 5, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the second power supply voltage (~~PV2~~) at substantially an instant a third power change command (~~PC~~) is received during the next time slot (~~n+1~~), or at a start of a time slot (~~n+2~~) succeeding the next time slot (~~n+1~~), if the third power change command (~~PC~~) indicates that a lower output power (~~PO~~) than indicated by the second power change command (~~PC~~) is required.
9. *(Currently Amended)* A transmitter as claimed in claim 3, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the second power supply voltage (~~PV2~~) to the power amplifier (~~PA~~) at substantially the instant the second power change command (~~PC~~) is received, or at substantially a start of the next time slot (~~n+1~~), if the second power change command (~~PC~~) indicates that the output power (~~PO~~) has to decrease, and for controlling the power supply (~~PS~~) to allow the second level to drop, while the first level is kept substantially constant.
10. *(Currently Amended)* A transmitter as claimed in claim 3, wherein the controller (~~CO~~) is arranged for supplying the control signal to the switching circuit (~~SC~~) to supply the first power supply voltage (~~PV1~~) to the power amplifier (~~PA~~) at substantially the instant the second power change command (~~PC~~) indicates that the output power (~~PO~~) has to decrease, and for controlling the power supply (~~PS~~) to allow the first level to drop.
11. *(Currently Amended)* A transmitter as claimed in claim 10, wherein the controller (~~CO~~) is arranged for controlling the power supply (~~PS~~) to keep the level of the non-used second power supply voltage substantially constant.
12. *(Currently Amended)* A transmitter as claimed in claim 1, wherein the power supply (~~PS~~) is arranged for supplying a third power supply voltage (~~PV3~~) having a third level, and wherein the controller (~~CO~~) is arranged for dynamically controlling the power supply (~~PS~~) to supply the second level which is higher than the first level, and the third level which is lower than the first level.

13. *(Currently Amended)* A transmitter as claimed in claim 12, wherein the controller (~~CO~~) is arranged for controlling the switching circuit (~~SC~~) to supply either the first power supply voltage (~~PV1~~), the second power supply voltage (~~PV2~~), or the third power supply voltage (~~PV3~~) to the amplifier power supply input (~~PI~~), depending on whether the second power change command (~~PC~~) indicates that the output power (~~PO~~) has to be stable, to increase, or to decrease, respectively.

14. *(Currently Amended)* A transmitter as claimed in claim 12, wherein the controller (~~CO~~) is arranged for controlling

- the switching circuit (~~SC~~) to supply either the second power supply voltage (~~PV2~~) or the third power supply voltage (~~PV3~~) to the amplifier power supply input (~~PI~~) if the output power (~~PO~~) has to be changed, and
- the power supply (~~PS~~) to only adapt the second level or the third level depending on whether the second level or the third level has the largest difference from a level of a power supply voltage (~~PV~~) supplied to the amplifier power supply input (~~PI~~).

15. *(Currently Amended)* A transmitter as claimed in claim 12, wherein the controller (~~CO~~) is adapted for controlling

- the switching circuit (~~SC~~) to supply either the second power supply voltage (~~PV2~~) or the third power supply voltage (~~PV3~~) to the amplifier power supply input (~~PI~~) if the output power (~~PO~~) has to be changed, and
- the power supply (~~PS~~) to adapt
 - (i) the first level and the third level if the second power supply voltage (~~PV2~~) is supplied to the amplifier power supply input (~~PI~~), wherein the first level is controlled for exceeding the second level, or
 - (ii) the first level and the second level if the third power supply voltage (~~PV3~~) is supplied to amplifier power supply input (~~PI~~), wherein the first level is controlled for exceeding the third level.

16. *(Currently Amended)* A method in a transmitter comprising a power amplifier (PA) having a power supply input (PI) and an output (PAO) for supplying a transmission signal (V_o) with an output power (P_o), and a power supply (PS) having power supply outputs (PSO₁, PSO₂) for supplying a first power supply voltage (PV₁) having a first level and a second power supply voltage (PV₂) having a second level, higher than the first level, the method comprising:

- controlling (CO, SC), the first power supply voltage (PV₁) to be supplied to the power supply input (PI), in response to a first power change command (PC) indicating a first desired level of the output power (P_o), and
- controlling (CO, SC), either the first power supply voltage (PV₁) or the second power supply voltage (PV₂) to be supplied to the amplifier power-supply input (PI) in response to a second power change command (PC) indicating a second desired level of the output power (P_o) and succeeding the first power change command (PC), depending on values of said first desired level and said second desired level.

17. *(Currently Amended)* A method as claimed in claim 16, wherein the transmitter is arranged for operation in a transmission system based on time slots (n, n+1), and wherein the first power change command (PC) indicates a value of the output power (P_o) required during a time slot (n) starting after an instant of occurrence of the first power change command (PC), and wherein the second power change command (PC) indicates a value of the output power (P_o) required during a next time slot (n+1) succeeding the first mentioned time slot (n) and starting after an instant of occurrence of the second power change command (PC).

18. *(Currently Amended)* A system comprising a base station and a transmitter comprising:

- a power amplifier (PA) having a power supply input (PI) and an output (PAO) for supplying a transmission signal (V_o) with an output power (P_o),
- a power supply (PS) having power supply outputs (PSO₁, PSO₂) for

supplying a first power supply voltage ($PV1$) having a first level and a second power supply voltage ($PV2$) having a second level, higher than the first level,

— a switching circuit (SC) arranged between the power supply outputs ($PSO1$, $PSO2$) and the power supply input (PI), and

— a controller (CO) for supplying a control signal to the switching circuit (SC) in response to a first power change command (PC) indicating a first desired level of the output power (PO), to supply the first power supply voltage ($PV1$) to the power-supply input (PI), and for supplying, the control signal to the switching circuit (SC), in response to a second power change command (PC) indicating a second desired level of the output power (PO) and succeeding the first power change command (PC) to supply either the first power supply voltage ($PV1$) or the second power supply voltage ($PV2$) to the amplifier power supply input (PI) depending on values of said first desired level and said second desired level.

19. (*Currently Amended*) A system as claimed in claim 18, wherein the transmitter is arranged for operation in a transmission system based on time slots ($n+1$, n , $n+1$), and wherein the first power change command (PC) indicates a value of the output power (PO) required during a time slot (n) starting after an instant of occurrence of the first power change command (PC), and wherein the second power change command (PC) indicates a value of the output power (PO) required during a next time slot ($n+1$) succeeding the first mentioned time slot (n) and starting after an instant of occurrence of the second power change command (PC).